

REMARKS

Applicants respectfully request further examination and reconsideration in view of the instant response. No new matter has been added.

CLAIM REJECTIONS35 U.S.C. §1 03

Claims 1-2, 5, 7, 8, 10, 12-14, 16, 18-20, 23, 25-26, 28, 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chacon et al (US Patent No. 5,831,819), hereinafter, Chacon, in view of Preker (U.S. patent no. 5,598,469), hereafter referred to as Preker. The rejection is respectfully traversed for the following reasons.

Claim 1 recites:

A miniature keyboard comprising:
a plurality of equally spaced keys on a single keypad for inputting data to a portable electronic device;
wherein said keys of said plurality of equally spaced keys are individually sized such that multiple ones can be depressed by a single finger tip depression and wherein adjacent keys differ in height; and
wherein said keys comprise at least one set of keys that are raised for providing key differentiation and to facilitate single key selection.

Claim 1 recites a miniature keyboard having “a plurality of equally spaced keys on a single keypad for inputting data to a portable electronic device.” It is respectfully submitted that Chacon fails to teach or suggest “equally spaced” or “on a single keypad,” as claimed. Chacon may teach keys that differ in height on

multiple keypads of an electronic device, but Chacon does not, in any embodiment, teach a single keypad with equally spaced keys wherein the keys comprise at least one set of keys that are raised for providing key differentiation and to facilitate single key selection, as claimed. In addition, Chacon fails to teach or suggest “wherein adjacent keys differ in height,” as claimed.

Applicants agree that Chacon fails to teach or suggest sizing the individual keys such that multiple ones can be depressed by a single fingertip depression. In Chacon, sizing the individual keys such that multiple ones can be depressed by a single fingertip depression, as claimed in the present invention, would result in data input errors, because multiple keys would be selected inadvertently. Applicants understand Chacon to teach keys that can be individually selected with a single fingertip depression. Therefore, sizing the keys such that multiple ones can be depressed by a single fingertip depression, as claimed, is not taught or suggested by Chacon. In fact, suggesting sizing the individual keys such that multiple ones can be depressed by a single fingertip depression in Chacon teaches away from the claimed limitations of the present invention.

Chacon, purports to teach sizing keys to distinguish between multiple keypads and not individual keys, as claimed. In column 5 lines 43-47, Chacon states, “the computer keys 24 making up the first keypad 54 generally have a similar shape and height, and differ in size and height to keys in the second

keypad 56 so a user can distinguish between the first and second keypads by feel.” Teaching multiple keypads teaches away from the claimed limitations of the present invention.

Chacon taken in combination with Preker fails to suggest these Claim limitations because Preker does not remedy the deficiencies in Chacon. Preker may purport to teach a single keyboard having all buttons of one row at a greater height than all of the buttons of another row. However, Preker fails to teach or suggest keys that are “equally spaced” or wherein “adjacent keys differ in height,” as claimed. In fact, Preker teaches “adjacent key(s) have approximately the same elevation,” (column 2 lines 37-38) which actually teaches away from the claimed limitations of the present invention. For the foregoing rational, Claim 1 is not rendered obvious over Chacon in view of Preker. As such, allowance of Claims 1-2, 5, 7, 8, 10, 12-14, 16, 18-20, 23, 25-26, 28, 29 and 31 is earnestly solicited.

Claims 3-4, 9, 21-22, 27, 30

Claims 3-4, 9, 21-22, 27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chacon in view of Preker aforementioned in Claims 2, 8, 20, 26, 29 further yet, in view of Kiernan (PUB. No. US 2002/0110238v AI). The rejection is respectfully traversed.

The deficiencies of Chacon and Preker are not remedied by Kiernan. Kiernan may disclose a keypad that tapers to a lower height towards the outer edge of the keypad. However, Kiernan discloses section [0005] lines 9-10, "a set of at least nine independently manually actuable keys. Kiernan fails to teach or suggest "multiple ones can be depressed by a single finger tip depression," as claimed. In fact, Kiernan actually teaches away from the limitation, as claimed.

It would be possible to depress multiple keys at one time on the Kiernan keyboard, however, the size of the keys on the Kiernan keyboard are not sized such that they are smaller than a single fingertip depression, as claimed. In addition, Kiernan does not teach or suggest "wherein adjacent keys differ in height," as claimed. Furthermore, Kiernan fails to teach keys that are equally spaced, as claimed. For the foregoing rational, Claim 1 is not rendered obvious over Chacon in view of Preker and further yet, in view of Kiernan. As such, allowance of Claims 3-4, 9, 21-22, 27 and 30 is respectfully solicited.

Claims 6, 11, 15, 24

Claims 6, 11, 15, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chacon et al. in view of Preker as aforementioned in claims 2, 8, 13, 20 in view of Miller (US Patent No. 5,660,448), hereinafter Miller. The rejection is respectfully traversed.

The deficiencies of Chacon and Preker are not remedied by Miller. Miller may disclose a standard QWERTY keyboard. However, Miller disclosed Col. 6, lines 43-46 “the distance between the center points of adjacent keys in the same row of the QWERTY keyboard layout 410 of keyboard 440 is maintained approximately the same as in standard keyboard 140.” In addition, Miller teaches keys that are not “equally spaced,” as claimed (Figures 2, 3, 4, 5A, 5B, 5C, 6, 7A, 7B, 7C, 8, 9, 10, 11, 12, 13, 14, 15A, 15B, 15C, 15D). For the foregoing rational, Claim 1 is not rendered obvious over Chacon in view of Preker and further yet in view of Miller. As such, allowance of Claims 6, 11, 15, and 24 is earnestly solicited.

Claim 17

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chacon et al. and Preker as aforementioned in Claim 1 in view of Louis (US Patent No. 5,212,473), hereafter Louis. The rejection is respectfully traversed.

Louis does not remedy the deficiencies in Chacon. Louis teaches “the keyboard housing includes a left hand portion and a right hand portion,” (col. 4 lines 1-2) which actually teaches away from the claimed limitations of the present invention because it is not “a single keypad” nor are the keys “equally spaced,” as claimed. For the foregoing rational, Claim 17 is not rendered obvious over

Chacon and Preker in view of Louis. As such, allowance of Claim 17 is earnestly solicited.

CONCLUSION

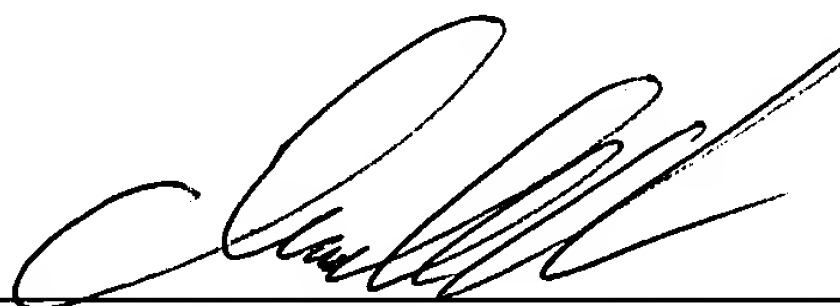
In light of the above listed remarks, reconsideration of the rejected Claims is requested. Based on the arguments presented above, it is respectfully submitted that Claims 1-31 overcome the rejections and objections of record and, therefore, allowance of Claims 1-31 is earnestly solicited.

Should the Examiner have a question regarding the instant response, the Applicants invite the Examiner to contact the Applicants' undersigned representative at the below listed telephone number.

Respectfully submitted,

WAGNER, MURABITO & HAO L.L.P.

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Anthony Murabito
Registration No. 35,295

Two North Market Street
Third Floor
San Jose, CA 95113
(408) 938-9060